Appendix F

Reference Case Projections by End-Use Sector and Country Grouping

Table F1. Total World Delivered Energy Consumption by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	10.4	10.1	9.8	10.0	10.1	10.1	-0.1
Natural Gas	20.1	21.3	22.4	23.2	23.9	24.9	0.9
Coal	4.2	4.1	4.1	4.0	4.0	3.9	-0.3
Electricity	15.2	16.9	18.9	21.2	23.6	26.3	2.3
Renewables	0.4	0.4	0.5	0.5	0.5	0.5	1.1
Total	**50.3**	**52.8**	**55.6**	**58.9**	**62.1**	**65.7**	**1.1**
Commercial							
Liquids	4.9	4.5	4.4	4.5	4.6	4.6	-0.2
Natural Gas	7.5	7.9	8.3	8.6	8.9	9.2	0.8
Coal	0.9	0.9	0.9	0.9	0.9	1.0	0.3
Electricity	13.0	14.3	16.0	18.1	20.4	22.8	2.4
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total	**26.4**	**27.8**	**29.8**	**32.2**	**34.9**	**37.7**	**1.5**
Industrial							
Liquids	60.5	59.2	61.8	64.9	67.6	70.3	0.6
Natural Gas	42.3	46.4	52.3	56.1	59.8	62.9	1.7
Coal	43.4	46.4	50.3	54.7	57.8	59.7	1.3
Electricity	26.2	31.0	35.7	40.1	44.5	48.4	2.6
Renewables	2.7	2.9	3.2	3.6	4.1	4.3	2.0
Total	**175.0**	**185.9**	**203.3**	**219.4**	**233.7**	**245.6**	**1.4**
Transportation							
Liquids	87.5	90.9	97.2	105.1	112.9	121.4	1.4
Natural Gas	3.4	4.0	4.4	4.7	4.9	5.1	1.7
Coal	0.2	0.2	0.2	0.1	0.0	0.0	—
Electricity	0.9	1.0	1.0	1.1	1.1	1.2	1.0
Total	**91.9**	**96.0**	**102.8**	**111.0**	**118.9**	**127.7**	**1.4**
All End-Use Sectors							
Liquids	163.2	164.7	173.3	184.5	195.1	206.4	1.0
Natural Gas	73.3	79.6	87.4	92.6	97.5	102.1	1.4
Coal	48.7	51.5	55.4	59.8	62.7	64.6	1.2
Electricity	55.2	63.2	71.6	80.4	89.5	98.6	2.4
Renewables	3.2	3.5	3.8	4.2	4.7	5.0	1.8
Delivered Energy	**343.6**	**362.6**	**391.5**	**421.5**	**449.6**	**476.7**	**1.4**
Electricity-Related Losses[a]	128.9	145.7	160.0	174.3	187.7	201.6	1.9
Total	**472.4**	**508.3**	**551.5**	**595.7**	**637.3**	**678.3**	**1.5**
Electric Power[b]							
Liquids	10.1	10.0	10.1	9.7	9.5	9.3	-0.3
Natural Gas	34.3	38.8	43.6	49.1	53.8	55.9	2.1
Coal	79.1	89.1	95.3	101.9	112.5	125.6	1.9
Nuclear	27.8	29.0	31.9	35.4	38.1	40.2	1.5
Renewables	33.6	42.0	50.7	58.5	63.2	69.0	3.0
Total	**186.3**	**208.9**	**231.7**	**254.7**	**277.2**	**300.3**	**2.0**
Total Energy Consumption							
Liquids	172.4	174.7	183.3	194.2	204.6	215.7	0.9
Natural Gas	108.1	118.5	131.0	141.7	151.3	158.0	1.6
Coal	127.5	140.6	150.7	161.7	175.2	190.2	1.7
Nuclear	27.8	29.0	31.9	35.4	38.1	40.2	1.6
Renewables	36.8	45.6	54.6	62.8	68.1	74.1	3.0
Total	**472.4**	**508.3**	**551.5**	**595.7**	**637.3**	**678.3**	**1.5**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.

Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2009*, DOE/EIA-0383(2009) (Washington, DC, March 2009), AEO2009 National Energy Modeling System, run AEO2009.D120908A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projections Plus (2009).

Table F2. Total OECD Delivered Energy Consumption by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	5.0	4.7	4.5	4.6	4.5	4.5	-0.5
Natural Gas	11.4	11.9	12.2	12.5	12.7	12.8	0.5
Coal	0.6	0.6	0.5	0.5	0.4	0.4	-2.1
Electricity	9.8	10.6	11.2	11.8	12.5	13.1	1.2
Renewables	0.4	0.4	0.5	0.5	0.5	0.5	1.1
Total	**27.2**	**28.2**	**28.9**	**29.8**	**30.6**	**31.2**	**0.6**
Commercial							
Liquids	3.1	2.8	2.8	2.9	2.9	2.9	-0.3
Natural Gas	6.1	6.4	6.6	6.7	6.9	7.0	0.6
Coal	0.2	0.2	0.2	0.2	0.2	0.1	-0.8
Electricity	9.7	10.6	11.5	12.4	13.3	14.1	1.6
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total	**19.2**	**20.1**	**21.1**	**22.3**	**23.3**	**24.3**	**1.0**
Industrial							
Liquids	31.3	27.8	28.2	28.2	28.2	28.4	-0.4
Natural Gas	19.1	19.5	20.5	21.0	21.7	22.4	0.7
Coal	9.2	8.6	8.5	8.4	8.4	8.5	-0.3
Electricity	11.2	11.5	12.3	12.8	13.2	13.7	0.8
Renewables	2.4	2.7	2.9	3.3	3.8	4.1	2.2
Total	**73.1**	**70.0**	**72.3**	**73.7**	**75.5**	**77.1**	**0.2**
Transportation							
Liquids	56.4	54.0	55.4	57.1	58.6	60.7	0.3
Natural Gas	1.0	1.1	1.1	1.2	1.3	1.4	1.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Total	**57.8**	**55.4**	**57.0**	**58.8**	**60.4**	**62.5**	**0.3**
All End-Use Sectors							
Liquids	95.8	89.3	90.9	92.8	94.3	96.5	0.0
Natural Gas	37.5	38.9	40.5	41.4	42.6	43.5	0.6
Coal	10.0	9.3	9.1	9.0	9.0	9.0	-0.4
Electricity	31.1	33.0	35.3	37.4	39.4	41.3	1.2
Renewables	2.9	3.2	3.5	3.9	4.5	4.7	2.0
Delivered Energy	**177.3**	**173.7**	**179.3**	**184.6**	**189.8**	**195.1**	**0.4**
Electricity-Related Losses[a]	64.3	69.1	73.0	76.7	79.7	83.0	1.1
Total	**241.7**	**242.8**	**252.4**	**261.3**	**269.5**	**278.2**	**0.6**
Electric Power[b]							
Liquids	3.8	3.1	3.1	3.0	2.9	2.8	-1.3
Natural Gas	15.9	17.8	19.1	21.1	23.1	23.3	1.6
Coal	37.2	38.0	38.7	38.8	39.3	41.6	0.5
Nuclear	23.5	24.0	24.7	25.6	26.0	27.0	0.6
Renewables	15.9	19.1	22.6	25.5	27.7	29.5	2.6
Total	**96.7**	**102.1**	**108.3**	**114.1**	**119.1**	**124.4**	**1.1**
Total Energy Consumption							
Liquids	98.8	92.4	94.0	95.8	97.2	99.4	0.0
Natural Gas	53.9	56.7	59.6	62.6	65.7	66.8	0.9
Coal	46.9	47.3	47.8	47.9	48.3	50.7	0.3
Nuclear	23.3	24.0	24.7	25.6	26.0	27.0	0.6
Renewables	18.8	22.4	26.3	29.5	32.3	34.3	2.5
Total	**241.7**	**242.8**	**252.4**	**261.3**	**269.5**	**278.2**	**0.6**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.

Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, *Annual Energy Outlook 2009*, DOE/EIA-0383(2009) (Washington, DC, March 2009), AEO2009 National Energy Modeling System, run AEO2009.D120908A, web site www.eia.doe.gov/oiaf/aeo; and World Energy Projections Plus (2009).

Table F3. Delivered Energy Consumption in the United States by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	1.3	1.3	1.2	1.2	1.1	1.1	-0.6
Natural Gas	4.5	4.9	5.0	5.1	5.1	5.1	0.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	-0.4
Electricity	4.6	4.8	4.9	5.1	5.4	5.7	0.9
Renewables	0.4	0.4	0.5	0.5	0.5	0.5	1.1
Total	**10.8**	**11.4**	**11.5**	**11.9**	**12.1**	**12.4**	**0.6**
Commercial							
Liquids	0.6	0.6	0.6	0.6	0.6	0.6	-0.3
Natural Gas	2.9	3.1	3.2	3.3	3.5	3.5	0.8
Coal	0.1	0.1	0.1	0.1	0.1	0.1	-0.1
Electricity	4.4	4.8	5.1	5.6	5.9	6.3	1.5
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total	**8.2**	**8.7**	**9.2**	**9.7**	**10.2**	**10.6**	**1.1**
Industrial							
Liquids	10.1	8.4	8.7	8.3	8.2	8.3	-0.8
Natural Gas	7.8	8.0	8.2	8.2	8.4	8.5	0.3
Coal	1.9	1.8	1.8	1.9	2.0	2.2	0.6
Electricity	3.5	3.3	3.5	3.5	3.5	3.7	0.3
Renewables	2.0	2.2	2.5	2.9	3.4	3.6	2.5
Total	**25.3**	**23.8**	**24.8**	**24.7**	**25.6**	**26.3**	**0.2**
Transportation							
Liquids	28.0	27.1	27.9	28.4	29.4	31.1	0.4
Natural Gas	0.6	0.7	0.7	0.8	0.8	0.8	1.1
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.1	3.6
Total	**28.6**	**27.8**	**28.6**	**29.1**	**30.2**	**31.9**	**0.5**
All End-Use Sectors							
Liquids	40.0	37.4	38.4	38.4	39.3	41.1	0.1
Natural Gas	15.9	16.8	17.2	17.4	17.8	17.9	0.5
Coal	2.0	1.9	1.9	2.0	2.1	2.3	0.6
Electricity	12.5	12.9	13.5	14.2	14.9	15.7	1.0
Renewables	2.5	2.8	3.1	3.5	4.0	4.2	2.2
Delivered Energy	**72.9**	**71.7**	**74.1**	**75.4**	**78.2**	**81.3**	**0.5**
Electricity-Related Losses[a]	27.1	28.1	28.8	30.0	30.9	32.3	0.7
Total	**100.0**	**99.9**	**102.9**	**105.4**	**109.1**	**113.6**	**0.5**
Electric Power[b]							
Liquids	1.2	0.5	0.5	0.5	0.5	0.5	-3.5
Natural Gas	6.0	6.4	6.2	6.7	7.6	7.1	0.7
Coal	20.7	21.0	21.7	22.0	22.3	24.3	0.7
Nuclear	8.2	8.4	8.7	9.0	9.0	9.5	0.6
Renewables	3.6	4.5	5.1	5.9	6.2	6.5	2.5
Total	**39.8**	**41.0**	**42.3**	**44.2**	**45.8**	**48.0**	**0.8**
Total Energy Consumption							
Liquids	40.6	37.9	38.9	38.9	39.8	41.6	0.1
Natural Gas	22.3	23.2	23.4	24.1	25.4	25.0	0.5
Coal	22.5	22.9	23.6	24.0	24.4	26.6	0.7
Nuclear	8.2	8.4	8.7	9.0	9.0	9.5	0.6
Renewables	6.5	7.4	8.3	9.5	10.4	10.9	2.2
Total	**100.0**	**99.9**	**102.9**	**105.4**	**109.1**	**113.6**	**0.5**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators. Includes net electricity imports.

Sources: **2006:** Based on Energy Information Administration (EIA), *Annual Energy Review 2007*, DOE/EIA-0384(2007) (Washington, DC, June 2008). **Projections:** EIA, *Annual Energy Outlook 2009*, DOE/EIA-0383(2009) (Washington, DC, March 2009), AEO2009 National Energy Modeling System, run AEO2009.D120908A, web site www.eia.doe.gov/oiaf/aeo.

Table F4. Delivered Energy Consumption in Canada by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Natural Gas	0.6	0.6	0.7	0.7	0.7	0.7	0.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	-2.3
Electricity	0.6	0.6	0.6	0.7	0.7	0.8	1.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.3**	**1.3**	**1.4**	**1.4**	**1.5**	**1.6**	**1.0**
Commercial							
Liquids	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Natural Gas	0.5	0.5	0.5	0.5	0.5	0.6	0.9
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.5	0.5	0.6	0.7	0.7	0.7	1.7
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.3**	**1.3**	**1.4**	**1.5**	**1.6**	**1.6**	**1.0**
Industrial							
Liquids	1.7	1.6	1.6	1.6	1.6	1.7	0.0
Natural Gas	1.9	2.0	2.3	2.5	2.7	2.9	1.8
Coal	0.2	0.2	0.2	0.2	0.2	0.2	1.4
Electricity	0.8	0.8	0.8	0.9	1.0	1.0	1.2
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Total	**4.6**	**4.6**	**5.0**	**5.3**	**5.6**	**6.0**	**1.1**
Transportation							
Liquids	2.2	2.3	2.3	2.4	2.5	2.6	0.7
Natural Gas	0.2	0.2	0.3	0.3	0.3	0.3	2.4
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-3.1
Total	**2.4**	**2.6**	**2.6**	**2.7**	**2.8**	**3.0**	**0.8**
All End-Use Sectors							
Liquids	4.3	4.3	4.3	4.4	4.6	4.7	0.4
Natural Gas	3.1	3.3	3.7	4.0	4.3	4.5	1.5
Coal	0.2	0.2	0.2	0.2	0.2	0.2	1.4
Electricity	1.8	1.9	2.1	2.3	2.4	2.6	1.4
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Delivered Energy	**9.6**	**9.8**	**10.4**	**11.0**	**11.6**	**12.2**	**1.0**
Electricity-Related Losses[a]	4.4	4.9	5.2	5.6	5.9	6.1	1.4
Total	**14.0**	**14.6**	**15.6**	**16.5**	**17.4**	**18.3**	**1.1**
Electric Power[b]							
Liquids	0.2	0.2	0.2	0.2	0.2	0.2	-0.6
Natural Gas	0.3	0.3	0.3	0.3	0.4	0.4	1.3
Coal	1.3	1.3	1.3	1.3	1.4	1.4	0.4
Nuclear	1.1	1.2	1.3	1.3	1.4	1.5	1.4
Renewables	3.5	3.8	4.3	4.6	5.0	5.3	1.7
Total	**6.5**	**6.8**	**7.3**	**7.8**	**8.3**	**8.7**	**1.2**
Total Energy Consumption							
Liquids	4.5	4.5	4.5	4.6	4.7	4.9	0.3
Natural Gas	3.4	3.6	4.0	4.3	4.6	4.9	1.5
Coal	1.4	1.5	1.5	1.5	1.6	1.6	0.5
Nuclear	1.1	1.2	1.3	1.3	1.4	1.5	1.4
Renewables	3.6	3.9	4.4	4.7	5.1	5.4	1.7
Total	**14.0**	**14.6**	**15.6**	**16.5**	**17.4**	**18.3**	**1.1**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F5. Delivered Energy Consumption in Mexico by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.2	0.2	0.3	0.3	0.3	0.3	1.6
Natural Gas	0.0	0.0	0.0	0.0	0.1	0.1	1.9
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.2	0.2	0.2	0.3	0.3	0.4	3.8
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.4**	**0.5**	**0.5**	**0.7**	**0.7**	**0.8**	**2.6**
Commercial							
Liquids	0.1	0.0	0.1	0.1	0.1	0.1	1.6
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.1	0.1	0.1	0.2	0.2	0.3	5.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.1**	**0.2**	**0.2**	**0.2**	**0.3**	**0.3**	**3.9**
Industrial							
Liquids	0.8	0.7	0.8	1.0	1.1	1.2	1.7
Natural Gas	1.4	1.5	1.6	1.8	2.0	2.2	1.8
Coal	0.1	0.1	0.1	0.1	0.1	0.2	3.2
Electricity	0.4	0.4	0.5	0.5	0.6	0.6	2.0
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.8
Total	**2.7**	**2.7**	**3.0**	**3.4**	**3.8**	**4.1**	**1.8**
Transportation							
Liquids	1.5	1.4	1.5	1.7	1.8	1.9	1.0
Natural Gas	0.0	0.0	0.1	0.1	0.1	0.1	2.2
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Total	**1.5**	**1.5**	**1.6**	**1.7**	**1.9**	**2.0**	**1.0**
All End-Use Sectors							
Liquids	2.5	2.4	2.7	3.1	3.3	3.5	1.3
Natural Gas	1.5	1.6	1.7	1.9	2.1	2.3	1.8
Coal	0.1	0.1	0.1	0.1	0.1	0.2	3.2
Electricity	0.6	0.7	0.8	1.0	1.1	1.3	3.0
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.8
Delivered Energy	**4.8**	**4.8**	**5.3**	**6.1**	**6.7**	**7.3**	**1.8**
Electricity-Related Losses[a]	2.6	1.8	2.1	2.2	2.4	2.6	0.1
Total	**7.4**	**6.6**	**7.4**	**8.3**	**9.1**	**9.9**	**1.2**
Electric Power[b]							
Liquids	0.6	0.6	0.6	0.6	0.6	0.5	-0.5
Natural Gas	0.8	1.0	1.3	1.5	1.8	2.1	4.1
Coal	0.3	0.3	0.3	0.3	0.3	0.4	1.0
Nuclear	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Renewables	0.5	0.5	0.6	0.7	0.7	0.7	1.6
Total	**2.3**	**2.5**	**2.9**	**3.2**	**3.5**	**3.9**	**2.2**
Total Energy Consumption							
Liquids	4.0	3.0	3.3	3.7	3.9	4.0	0.0
Natural Gas	2.4	2.5	3.0	3.4	3.9	4.5	2.7
Coal	0.4	0.4	0.4	0.4	0.5	0.6	1.5
Nuclear	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Renewables	0.5	0.5	0.6	0.7	0.7	0.7	1.8
Total	**7.4**	**6.6**	**7.4**	**8.3**	**9.1**	**9.9**	**1.2**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F6. Delivered Energy Consumption in OECD Europe by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	2.6	2.4	2.3	2.3	2.3	2.3	-0.5
Natural Gas	5.3	5.4	5.5	5.6	5.7	5.9	0.4
Coal	0.6	0.5	0.5	0.4	0.4	0.3	-2.0
Electricity	3.0	3.5	3.8	4.0	4.2	4.4	1.5
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**11.5**	**11.7**	**12.0**	**12.3**	**12.6**	**12.8**	**0.5**
Commercial							
Liquids	1.0	0.9	0.8	0.8	0.8	0.8	-0.8
Natural Gas	1.9	1.9	1.9	1.9	2.0	2.1	0.4
Coal	0.1	0.1	0.1	0.1	0.1	0.1	-1.6
Electricity	2.8	3.2	3.4	3.7	3.9	4.1	1.6
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**5.7**	**6.0**	**6.2**	**6.5**	**6.8**	**7.0**	**0.9**
Industrial							
Liquids	10.6	9.7	9.6	9.8	9.9	10.1	-0.2
Natural Gas	6.6	6.6	6.8	6.9	7.1	7.2	0.4
Coal	3.8	3.4	3.2	3.1	3.0	2.9	-1.1
Electricity	4.6	4.8	5.1	5.4	5.6	5.8	1.0
Renewables	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Total	**25.8**	**24.8**	**25.0**	**25.5**	**25.9**	**26.2**	**0.1**
Transportation							
Liquids	17.4	16.2	16.4	17.0	17.1	17.2	-0.1
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1	1.4
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Total	**17.8**	**16.5**	**16.7**	**17.4**	**17.5**	**17.6**	**0.0**
All End-Use Sectors							
Liquids	31.6	29.1	29.0	30.0	30.2	30.3	-0.2
Natural Gas	13.8	13.9	14.2	14.5	14.9	15.2	0.4
Coal	4.4	4.0	3.8	3.6	3.4	3.3	-1.3
Electricity	10.7	11.7	12.6	13.4	14.0	14.5	1.3
Renewables	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Delivered Energy	**60.8**	**59.0**	**59.9**	**61.7**	**62.8**	**63.6**	**0.2**
Electricity-Related Losses[a]	20.8	23.2	24.9	26.2	27.3	28.2	1.3
Total	**81.6**	**82.2**	**84.8**	**87.9**	**90.0**	**91.8**	**0.5**
Electric Power[b]							
Liquids	0.8	0.9	0.9	0.8	0.8	0.8	-0.5
Natural Gas	5.9	7.0	7.9	8.7	9.3	9.6	2.0
Coal	8.7	9.0	9.0	8.8	8.7	8.8	0.0
Nuclear	9.8	9.7	9.7	9.6	9.5	9.5	-0.1
Renewables	6.4	8.3	10.0	11.6	13.0	14.1	3.4
Total	**32.0**	**34.9**	**37.5**	**39.5**	**41.3**	**42.7**	**1.2**
Total Energy Consumption							
Liquids	32.4	30.0	29.9	30.8	31.0	31.1	-0.2
Natural Gas	19.7	21.0	22.1	23.3	24.2	24.8	1.0
Coal	13.2	13.0	12.8	12.4	12.2	12.0	-0.4
Nuclear	9.6	9.7	9.7	9.6	9.5	9.5	-0.1
Renewables	6.6	8.5	10.3	11.9	13.3	14.4	3.3
Total	**81.6**	**82.2**	**84.8**	**87.9**	**90.0**	**91.8**	**0.5**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F7. Delivered Energy Consumption in Japan by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.6	0.5	0.6	0.6	0.6	0.5	-0.7
Natural Gas	0.4	0.4	0.5	0.4	0.4	0.4	0.2
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	1.0	1.1	1.1	1.2	1.2	1.2	0.7
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**2.1**	**2.0**	**2.1**	**2.2**	**2.2**	**2.2**	**0.2**
Commercial							
Liquids	0.9	0.8	0.8	0.8	0.9	0.9	-0.2
Natural Gas	0.7	0.7	0.7	0.7	0.6	0.6	-0.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	-1.0
Electricity	1.3	1.4	1.4	1.5	1.5	1.6	0.8
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**2.9**	**2.8**	**2.9**	**3.0**	**3.0**	**3.0**	**0.2**
Industrial							
Liquids	4.3	3.7	3.9	4.0	3.9	3.8	-0.5
Natural Gas	0.4	0.4	0.5	0.5	0.5	0.5	0.4
Coal	2.1	2.0	2.0	2.0	1.9	1.8	-0.7
Electricity	0.9	0.9	1.0	1.0	1.0	1.0	0.1
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.6
Total	**7.8**	**7.2**	**7.5**	**7.6**	**7.3**	**7.1**	**-0.4**
Transportation							
Liquids	4.0	3.5	3.7	3.9	3.8	3.7	-0.3
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	—
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Total	**4.0**	**3.6**	**3.8**	**3.9**	**3.8**	**3.7**	**-0.3**
All End-Use Sectors							
Liquids	9.8	8.6	9.0	9.3	9.1	8.9	-0.4
Natural Gas	1.5	1.6	1.7	1.6	1.5	1.5	0.0
Coal	2.2	2.1	2.0	2.0	1.9	1.8	-0.7
Electricity	3.4	3.4	3.6	3.7	3.8	3.8	0.6
Renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.6
Delivered Energy	**16.8**	**15.7**	**16.3**	**16.7**	**16.4**	**16.1**	**-0.2**
Electricity-Related Losses[a]	5.9	6.2	6.5	6.7	6.8	7.0	0.7
Total	**22.8**	**21.9**	**22.9**	**23.4**	**23.2**	**23.0**	**0.0**
Electric Power[b]							
Liquids	0.7	0.7	0.7	0.7	0.7	0.7	-0.4
Natural Gas	2.1	2.1	2.3	2.5	2.6	2.6	0.8
Coal	2.5	2.5	2.4	2.4	2.3	2.2	-0.4
Nuclear	2.9	3.1	3.3	3.4	3.7	3.9	1.2
Renewables	1.1	1.3	1.4	1.4	1.4	1.4	0.9
Total	**9.4**	**9.7**	**10.1**	**10.4**	**10.6**	**10.8**	**0.6**
Total Energy Consumption							
Liquids	10.5	9.3	9.7	10.0	9.8	9.5	-0.4
Natural Gas	3.6	3.7	4.0	4.1	4.1	4.0	0.5
Coal	4.6	4.5	4.5	4.3	4.2	4.0	-0.6
Nuclear	2.9	3.1	3.3	3.4	3.7	3.9	1.2
Renewables	1.1	1.3	1.4	1.5	1.5	1.5	1.2
Total	**22.8**	**21.9**	**22.9**	**23.4**	**23.2**	**23.0**	**0.0**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F8. Delivered Energy Consumption in South Korea by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.2	0.2	0.2	0.1	0.1	0.1	-1.7
Natural Gas	0.4	0.4	0.5	0.5	0.5	0.5	0.7
Coal	0.0	0.0	0.0	0.0	0.0	0.0	-3.3
Electricity	0.2	0.2	0.2	0.3	0.3	0.3	2.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.8**	**0.8**	**0.9**	**0.9**	**0.9**	**0.9**	**0.6**
Commercial							
Liquids	0.2	0.2	0.2	0.2	0.2	0.2	0.4
Natural Gas	0.2	0.2	0.2	0.2	0.2	0.2	1.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.4	0.4	0.5	0.6	0.7	0.8	2.6
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.8**	**0.8**	**0.9**	**1.0**	**1.1**	**1.2**	**1.9**
Industrial							
Liquids	3.2	3.1	3.0	2.8	2.8	2.9	-0.4
Natural Gas	0.3	0.3	0.3	0.3	0.3	0.3	1.3
Coal	0.8	0.8	0.8	0.8	0.8	0.8	-0.2
Electricity	0.6	0.7	0.8	0.9	1.0	1.1	2.1
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.5
Total	**4.9**	**4.9**	**5.0**	**4.8**	**5.0**	**5.1**	**0.2**
Transportation							
Liquids	1.9	2.0	2.1	2.2	2.2	2.3	0.7
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	1.8
Total	**1.9**	**2.0**	**2.1**	**2.2**	**2.3**	**2.3**	**0.7**
All End-Use Sectors							
Liquids	5.5	5.5	5.4	5.3	5.4	5.5	0.0
Natural Gas	0.8	0.9	1.0	1.0	1.0	1.1	1.1
Coal	0.9	0.9	0.9	0.9	0.8	0.8	-0.4
Electricity	1.2	1.4	1.6	1.8	1.9	2.1	2.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.5
Delivered Energy	**8.4**	**8.6**	**8.9**	**8.9**	**9.3**	**9.5**	**0.5**
Electricity-Related Losses[a]	1.0	2.4	2.8	3.1	3.4	3.7	5.5
Total	**9.4**	**11.0**	**11.6**	**12.0**	**12.7**	**13.2**	**1.4**
Electric Power[b]							
Liquids	0.2	0.2	0.2	0.2	0.2	0.2	-0.5
Natural Gas	0.5	0.6	0.7	0.8	0.9	0.9	2.8
Coal	1.3	1.5	1.6	1.6	1.9	2.1	2.0
Nuclear	1.4	1.4	1.8	2.1	2.3	2.5	2.3
Renewables	0.0	0.1	0.1	0.1	0.1	0.1	4.9
Total	**3.4**	**3.7**	**4.3**	**4.9**	**5.3**	**5.8**	**2.2**
Total Energy Consumption							
Liquids	4.5	5.7	5.6	5.5	5.6	5.7	1.0
Natural Gas	1.3	1.4	1.7	1.8	1.9	2.0	1.8
Coal	2.2	2.4	2.4	2.5	2.7	2.9	1.2
Nuclear	1.4	1.4	1.8	2.1	2.3	2.5	2.4
Renewables	0.0	0.1	0.1	0.1	0.1	0.1	5.3
Total	**9.4**	**11.0**	**11.6**	**12.0**	**12.7**	**13.2**	**1.4**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F9. Delivered Energy Consumption in Australia/New Zealand by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Natural Gas	0.1	0.1	0.1	0.2	0.2	0.2	1.2
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Electricity	0.3	0.3	0.3	0.3	0.3	0.4	1.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**	**1.3**
Commercial							
Liquids	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Coal	0.0	0.0	0.0	0.0	0.0	0.0	-0.4
Electricity	0.2	0.2	0.3	0.3	0.3	0.3	1.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.3**	**0.3**	**0.3**	**0.4**	**0.4**	**0.4**	**1.5**
Industrial							
Liquids	0.6	0.6	0.6	0.6	0.6	0.6	0.0
Natural Gas	0.7	0.7	0.8	0.8	0.8	0.8	0.7
Coal	0.2	0.2	0.3	0.3	0.3	0.4	1.9
Electricity	0.4	0.4	0.5	0.5	0.5	0.6	1.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	**1.9**	**2.0**	**2.1**	**2.2**	**2.3**	**2.4**	**0.8**
Transportation							
Liquids	1.4	1.4	1.5	1.7	1.8	1.9	1.2
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Total	**1.5**	**1.4**	**1.5**	**1.7**	**1.8**	**1.9**	**1.2**
All End-Use Sectors							
Liquids	2.1	2.0	2.1	2.3	2.4	2.5	0.9
Natural Gas	0.9	0.9	1.0	1.0	1.0	1.1	0.8
Coal	0.2	0.3	0.3	0.3	0.3	0.4	1.8
Electricity	0.9	1.0	1.1	1.1	1.2	1.3	1.5
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Delivered Energy	**4.1**	**4.1**	**4.4**	**4.8**	**5.0**	**5.2**	**1.1**
Electricity-Related Losses[a]	2.4	2.5	2.8	2.9	3.1	3.2	1.1
Total	**6.5**	**6.7**	**7.3**	**7.7**	**8.0**	**8.4**	**1.1**
Electric Power[b]							
Liquids	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Natural Gas	0.3	0.4	0.4	0.5	0.6	0.6	2.2
Coal	2.3	2.4	2.4	2.4	2.4	2.5	0.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	—
Renewables	0.5	0.7	1.1	1.2	1.3	1.3	4.1
Total	**3.2**	**3.5**	**3.9**	**4.1**	**4.3**	**4.4**	**1.4**
Total Energy Consumption		1.7					
Liquids	2.2	2.0	2.1	2.3	2.4	2.5	0.6
Natural Gas	1.2	1.3	1.4	1.5	1.6	1.6	1.3
Coal	2.6	2.6	2.6	2.7	2.7	2.9	0.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	—
Renewables	0.5	0.7	1.1	1.2	1.3	1.3	4.2
Total	**6.5**	**6.7**	**7.3**	**7.7**	**8.0**	**8.4**	**1.1**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F10. Total Non-OECD Delivered Energy Consumption by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	5.3	5.4	5.3	5.4	5.6	5.7	0.2
Natural Gas	8.8	9.4	10.2	10.7	11.2	12.1	1.4
Coal	3.6	3.6	3.6	3.6	3.6	3.5	0.0
Electricity	5.4	6.4	7.7	9.3	11.1	13.1	3.8
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**23.0**	**24.6**	**26.7**	**29.0**	**31.5**	**34.5**	**1.7**
Commercial							
Liquids	1.8	1.7	1.6	1.6	1.7	1.7	-0.2
Natural Gas	1.4	1.5	1.7	1.9	2.0	2.2	1.8
Coal	0.7	0.7	0.7	0.8	0.8	0.8	0.6
Electricity	3.3	3.8	4.6	5.7	7.1	8.8	4.2
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**7.2**	**7.7**	**8.6**	**9.9**	**11.6**	**13.5**	**2.7**
Industrial							
Liquids	29.2	31.4	33.6	36.7	39.4	41.8	1.5
Natural Gas	23.2	26.9	31.8	35.2	38.0	40.5	2.3
Coal	34.2	37.8	41.8	46.2	49.3	51.2	1.7
Electricity	14.9	19.6	23.4	27.4	31.3	34.6	3.6
Renewables	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Total	**101.9**	**115.9**	**131.0**	**145.7**	**158.2**	**168.5**	**2.1**
Transportation							
Liquids	31.1	36.9	41.8	48.0	54.2	60.7	2.8
Natural Gas	2.4	2.9	3.2	3.4	3.6	3.8	1.8
Coal	0.2	0.2	0.2	0.1	0.0	0.0	—
Electricity	0.5	0.5	0.6	0.6	0.7	0.7	1.5
Total	**34.2**	**40.6**	**45.8**	**52.2**	**58.5**	**65.2**	**2.7**
All End-Use Sectors							
Liquids	67.4	75.4	82.4	91.7	100.8	109.9	2.1
Natural Gas	35.8	40.7	46.9	51.2	54.9	58.5	2.1
Coal	38.7	42.2	46.3	50.7	53.7	55.6	1.5
Electricity	24.1	30.2	36.3	43.0	50.1	57.3	3.7
Renewables	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Delivered Energy	**166.2**	**188.9**	**212.2**	**236.9**	**259.8**	**281.6**	**2.2**
Electricity-Related Losses[a]	64.6	76.6	87.0	97.5	108.0	118.6	2.6
Total	**230.8**	**265.4**	**299.1**	**334.4**	**367.8**	**400.1**	**2.3**
Electric Power[b]							
Liquids	6.3	6.9	7.0	6.7	6.6	6.5	0.1
Natural Gas	18.4	21.0	24.5	27.9	30.7	32.6	2.4
Coal	41.9	51.1	56.6	63.1	73.2	84.0	2.9
Nuclear	4.4	5.0	7.2	9.9	12.2	13.2	4.7
Renewables	17.7	22.9	28.1	33.0	35.5	39.5	3.4
Total	**89.6**	**106.8**	**123.3**	**140.6**	**158.1**	**175.9**	**2.9**
Total Energy Consumption							
Liquids	73.6	82.3	89.3	98.4	107.4	116.4	1.9
Natural Gas	54.2	61.7	71.4	79.1	85.5	91.2	2.2
Coal	80.6	93.3	102.9	113.8	126.9	139.6	2.3
Nuclear	4.4	5.0	7.2	9.9	12.2	13.2	4.7
Renewables	18.0	23.1	28.4	33.2	35.8	39.8	3.4
Total	**230.8**	**265.4**	**299.1**	**334.4**	**367.8**	**400.1**	**2.3**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F11. Delivered Energy Consumption in Russia by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.4	0.3	0.3	0.3	0.3	0.3	-0.4
Natural Gas	3.2	3.2	3.3	3.3	3.4	3.5	0.5
Coal	0.3	0.3	0.3	0.2	0.2	0.2	-2.0
Electricity	0.4	0.4	0.5	0.6	0.7	0.8	3.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**4.2**	**4.2**	**4.4**	**4.5**	**4.6**	**4.9**	**0.6**
Commercial							
Liquids	0.1	0.1	0.1	0.1	0.0	0.0	-2.2
Natural Gas	0.6	0.6	0.6	0.6	0.6	0.6	0.4
Coal	0.1	0.1	0.1	0.1	0.1	0.1	-0.7
Electricity	0.4	0.4	0.5	0.6	0.7	0.8	3.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**	**1.6**	**1.4**
Industrial							
Liquids	2.5	2.4	2.6	2.7	2.6	2.6	0.1
Natural Gas	5.7	6.0	6.3	6.6	6.9	7.1	0.9
Coal	1.3	1.4	1.4	1.5	1.5	1.5	0.3
Electricity	1.7	2.0	2.3	2.6	2.7	2.8	2.1
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.3
Total	**11.2**	**11.9**	**12.7**	**13.4**	**13.7**	**13.9**	**0.9**
Transportation							
Liquids	2.3	2.4	2.4	2.5	2.4	2.3	0.1
Natural Gas	1.7	2.1	2.2	2.3	2.3	2.4	1.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.3	0.3	0.3	0.3	0.3	0.3	0.1
Total	**4.2**	**4.7**	**4.9**	**5.1**	**5.0**	**5.0**	**0.7**
All End-Use Sectors							
Liquids	5.2	5.2	5.4	5.6	5.4	5.3	0.1
Natural Gas	11.1	11.8	12.4	12.8	13.2	13.7	0.9
Coal	1.8	1.8	1.8	1.8	1.8	1.8	-0.1
Electricity	2.7	3.2	3.7	4.1	4.4	4.7	2.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.3
Delivered Energy	**20.8**	**22.0**	**23.3**	**24.3**	**24.9**	**25.4**	**0.8**
Electricity-Related Losses[a]	9.6	10.3	11.1	11.6	12.0	12.3	1.0
Total	**30.4**	**32.2**	**34.3**	**36.0**	**36.9**	**37.7**	**0.9**
Electric Power[b]							
Liquids	0.4	0.4	0.4	0.4	0.3	0.3	-0.4
Natural Gas	5.7	6.4	6.9	7.2	7.3	7.4	1.1
Coal	2.7	3.1	3.3	3.3	3.3	3.4	0.9
Nuclear	1.6	1.7	2.1	2.7	3.3	3.5	3.3
Renewables	1.8	1.8	2.0	2.1	2.3	2.4	1.1
Total	**12.2**	**13.4**	**14.8**	**15.7**	**16.4**	**17.0**	**1.4**
Total Energy Consumption							
Liquids	5.8	5.6	5.7	5.9	5.8	5.6	-0.1
Natural Gas	16.7	18.1	19.3	20.1	20.5	21.0	0.9
Coal	4.6	5.0	5.2	5.1	5.1	5.2	0.5
Nuclear	1.6	1.7	2.1	2.7	3.3	3.5	3.3
Renewables	1.8	1.9	2.0	2.2	2.3	2.4	1.3
Total	**30.4**	**32.2**	**34.3**	**36.0**	**36.9**	**37.7**	**0.9**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F12. Delivered Energy Consumption in Other Non-OECD Europe and Eurasia by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.2	0.2	0.2	0.2	0.2	0.2	-0.4
Natural Gas	2.6	2.8	3.0	3.0	3.0	2.9	0.5
Coal	0.2	0.2	0.1	0.1	0.1	0.1	-3.1
Electricity	0.4	0.5	0.6	0.6	0.7	0.7	2.2
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**3.5**	**3.6**	**3.9**	**4.0**	**4.0**	**3.9**	**0.5**
Commercial							
Liquids	0.1	0.1	0.0	0.1	0.1	0.1	-0.3
Natural Gas	0.4	0.4	0.5	0.5	0.4	0.4	0.1
Coal	0.0	0.0	0.0	0.0	0.0	0.0	-5.2
Electricity	0.2	0.2	0.3	0.3	0.4	0.4	2.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.7**	**0.7**	**0.8**	**0.8**	**0.9**	**0.9**	**1.1**
Industrial							
Liquids	1.9	1.7	1.6	1.6	1.6	1.6	-0.7
Natural Gas	3.6	4.0	4.6	5.0	5.2	5.4	1.7
Coal	2.0	2.0	1.9	1.9	1.8	1.8	-0.5
Electricity	1.0	1.1	1.3	1.4	1.5	1.5	1.5
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.4
Total	**8.5**	**8.8**	**9.5**	**9.9**	**10.1**	**10.3**	**0.8**
Transportation							
Liquids	2.3	2.6	2.8	2.9	3.2	3.5	1.8
Natural Gas	0.3	0.3	0.4	0.4	0.4	0.4	1.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.1	0.1	0.1	0.1	0.1	0.1	-0.1
Total	**2.6**	**3.0**	**3.2**	**3.4**	**3.7**	**4.0**	**1.8**
All End-Use Sectors							
Liquids	4.4	4.6	4.6	4.8	5.1	5.3	0.8
Natural Gas	6.9	7.5	8.4	8.9	9.1	9.2	1.2
Coal	2.2	2.1	2.1	2.0	2.0	1.9	-0.7
Electricity	1.8	1.9	2.2	2.4	2.6	2.7	1.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-2.4
Delivered Energy	**15.3**	**16.2**	**17.4**	**18.1**	**18.7**	**19.1**	**0.9**
Electricity-Related Losses[a]	5.0	5.6	5.9	6.2	6.4	6.5	1.1
Total	**20.3**	**21.7**	**23.3**	**24.3**	**25.0**	**25.6**	**1.0**
Electric Power[b]							
Liquids	0.4	0.4	0.4	0.4	0.3	0.3	-0.3
Natural Gas	2.2	2.4	2.7	2.9	3.1	3.2	1.6
Coal	1.9	2.1	2.2	2.2	2.2	2.3	0.7
Nuclear	1.3	1.3	1.5	1.8	1.9	2.0	1.8
Renewables	1.3	1.3	1.3	1.3	1.4	1.4	0.2
Total	**7.1**	**7.5**	**8.1**	**8.6**	**8.9**	**9.2**	**1.1**
Total Energy Consumption							
Liquids	4.4	4.9	5.0	5.1	5.4	5.6	1.0
Natural Gas	9.1	9.9	11.1	11.8	12.2	12.4	1.3
Coal	4.2	4.2	4.3	4.2	4.1	4.2	0.0
Nuclear	1.4	1.3	1.5	1.8	1.9	2.0	1.6
Renewables	1.3	1.3	1.3	1.4	1.4	1.4	0.3
Total	**20.3**	**21.7**	**23.3**	**24.3**	**25.0**	**25.6**	**1.0**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F13. Delivered Energy Consumption in China by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.9	0.8	0.7	0.7	0.7	0.6	-1.2
Natural Gas	0.5	0.6	0.8	1.0	1.3	1.8	5.8
Coal	2.8	2.8	2.8	2.9	2.9	2.8	0.1
Electricity	1.1	1.5	1.9	2.5	3.2	4.1	5.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**5.2**	**5.6**	**6.2**	**7.0**	**8.0**	**9.3**	**2.4**
Commercial							
Liquids	1.0	0.9	0.8	0.8	0.8	0.8	-1.0
Natural Gas	0.1	0.1	0.2	0.3	0.4	0.6	6.9
Coal	0.3	0.3	0.3	0.3	0.3	0.3	0.0
Electricity	0.5	0.5	0.7	1.0	1.4	2.0	6.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.9**	**1.9**	**2.1**	**2.4**	**3.0**	**3.7**	**2.9**
Industrial							
Liquids	7.2	8.3	9.2	10.6	11.6	12.3	2.2
Natural Gas	1.1	1.4	2.1	2.5	2.9	3.2	4.6
Coal	23.9	27.0	30.2	33.9	36.4	37.9	1.9
Electricity	7.1	10.4	12.8	15.5	18.4	20.7	4.6
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Total	**39.3**	**47.1**	**54.3**	**62.5**	**69.3**	**74.1**	**2.7**
Transportation							
Liquids	5.2	6.9	9.1	12.1	14.8	17.2	5.1
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	11.2
Coal	0.2	0.2	0.2	0.1	0.0	0.0	—
Electricity	0.1	0.1	0.1	0.2	0.2	0.2	4.4
Total	**5.4**	**7.2**	**9.4**	**12.4**	**15.0**	**17.4**	**5.0**
All End-Use Sectors							
Liquids	14.3	16.9	19.9	24.2	27.8	30.9	3.3
Natural Gas	1.6	2.2	3.0	3.8	4.6	5.5	5.2
Coal	27.1	30.2	33.5	37.2	39.6	41.0	1.7
Electricity	8.8	12.5	15.6	19.2	23.2	27.0	4.8
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Delivered Energy	**51.8**	**61.8**	**72.1**	**84.4**	**95.3**	**104.4**	**3.0**
Electricity-Related Losses[a]	22.0	28.7	33.8	39.6	45.4	51.4	3.6
Total	**73.8**	**90.5**	**105.9**	**124.0**	**140.7**	**155.8**	**3.2**
Electric Power[b]							
Liquids	0.5	0.5	0.5	0.5	0.5	0.5	0.1
Natural Gas	0.4	0.6	0.9	1.2	1.5	1.5	5.3
Coal	24.9	32.5	36.8	42.4	50.5	57.3	3.5
Nuclear	0.6	0.7	1.7	2.8	3.8	4.4	9.0
Renewables	4.3	7.0	9.5	11.8	12.3	14.7	5.2
Total	**30.9**	**41.2**	**49.5**	**58.8**	**68.6**	**78.4**	**4.0**
Total Energy Consumption							
Liquids	14.8	17.4	20.5	24.7	28.3	31.3	3.2
Natural Gas	2.1	2.7	4.0	5.1	6.1	7.1	5.2
Coal	52.0	62.7	70.3	79.5	90.1	98.3	2.7
Nuclear	0.6	0.7	1.7	2.8	3.8	4.4	9.0
Renewables	4.3	7.0	9.5	11.8	12.4	14.7	5.2
Total	**73.8**	**90.5**	**105.9**	**124.0**	**140.7**	**155.8**	**3.2**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F14. Delivered Energy Consumption in India by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.7	0.7	0.8	0.9	0.9	1.0	1.1
Natural Gas	0.0	0.0	0.0	0.0	0.1	0.1	3.4
Coal	0.1	0.1	0.2	0.2	0.2	0.2	1.6
Electricity	0.4	0.5	0.7	0.9	1.2	1.5	5.6
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.3**	**1.4**	**1.7**	**2.1**	**2.4**	**2.7**	**3.1**
Commercial							
Liquids	0.0	0.0	0.0	0.0	0.0	0.0	—
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	—
Coal	0.2	0.2	0.2	0.2	0.2	0.3	2.0
Electricity	0.1	0.2	0.3	0.3	0.4	0.6	5.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.3**	**0.4**	**0.4**	**0.6**	**0.7**	**0.8**	**4.3**
Industrial							
Liquids	2.4	2.5	3.2	4.0	4.3	4.6	2.8
Natural Gas	0.8	1.0	1.2	1.4	1.5	1.6	2.7
Coal	3.2	3.4	3.8	4.2	4.3	4.4	1.3
Electricity	1.1	1.5	1.8	2.1	2.4	2.6	3.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-0.4
Total	**7.6**	**8.4**	**10.0**	**11.7**	**12.6**	**13.3**	**2.3**
Transportation							
Liquids	1.2	1.5	2.1	2.8	3.3	3.8	4.7
Natural Gas	0.0	0.0	0.1	0.1	0.1	0.1	2.8
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.1	0.1	0.1	0.1	3.3
Total	**1.3**	**1.6**	**2.2**	**3.0**	**3.4**	**3.9**	**4.7**
All End-Use Sectors							
Liquids	4.4	4.8	6.1	7.7	8.6	9.4	3.2
Natural Gas	0.9	1.0	1.3	1.5	1.7	1.8	2.8
Coal	3.5	3.7	4.2	4.5	4.7	4.9	1.4
Electricity	1.7	2.2	2.8	3.4	4.1	4.8	4.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-0.4
Delivered Energy	**10.6**	**11.8**	**14.4**	**17.3**	**19.0**	**20.8**	**2.9**
Electricity-Related Losses[a]	7.1	7.3	8.5	9.6	10.5	11.5	2.0
Total	**17.7**	**19.1**	**22.9**	**26.8**	**29.6**	**32.3**	**2.5**
Electric Power[b]							
Liquids	0.2	0.2	0.2	0.2	0.2	0.2	-0.4
Natural Gas	0.5	0.8	1.2	1.6	1.8	2.0	5.9
Coal	5.9	6.5	7.1	7.5	8.1	9.3	1.9
Nuclear	0.2	0.4	0.7	1.1	1.4	1.6	9.2
Renewables	1.2	1.6	2.1	2.6	3.0	3.2	4.2
Total	**8.1**	**9.6**	**11.3**	**13.0**	**14.6**	**16.3**	**3.0**
Total Energy Consumption							
Liquids	5.4	5.0	6.3	7.9	8.7	9.6	2.4
Natural Gas	1.4	1.9	2.5	3.1	3.5	3.8	4.2
Coal	9.4	10.3	11.2	12.1	12.9	14.2	1.7
Nuclear	0.2	0.4	0.7	1.1	1.4	1.6	9.2
Renewables	1.2	1.6	2.1	2.6	3.0	3.2	4.2
Total	**17.7**	**19.1**	**22.9**	**26.8**	**29.6**	**32.3**	**2.5**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F15. Delivered Energy Consumption in Other Non-OECD Asia by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.9	0.8	0.8	0.9	0.9	1.0	0.3
Natural Gas	0.3	0.3	0.4	0.5	0.6	0.7	3.3
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Electricity	0.9	1.0	1.2	1.4	1.7	2.0	3.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**2.1**	**2.2**	**2.5**	**2.8**	**3.2**	**3.6**	**2.3**
Commercial							
Liquids	0.3	0.3	0.3	0.3	0.3	0.3	0.5
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1	2.1
Coal	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Electricity	0.7	0.8	1.0	1.2	1.5	1.9	4.0
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.1**	**1.1**	**1.3**	**1.6**	**1.9**	**2.3**	**3.2**
Industrial							
Liquids	5.4	5.3	5.7	6.1	6.7	7.4	1.3
Natural Gas	2.7	3.3	4.4	5.4	6.3	7.3	4.3
Coal	2.1	2.2	2.5	2.7	3.0	3.3	1.9
Electricity	1.3	1.5	1.8	2.2	2.5	3.0	3.6
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Total	**11.4**	**12.2**	**14.3**	**16.4**	**18.6**	**21.0**	**2.6**
Transportation							
Liquids	6.2	7.0	7.9	8.9	10.3	11.8	2.7
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1	1.9
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Total	**6.3**	**7.0**	**7.9**	**9.0**	**10.4**	**11.9**	**2.7**
All End-Use Sectors							
Liquids	12.7	13.4	14.6	16.2	18.2	20.4	2.0
Natural Gas	3.1	3.7	5.0	6.0	7.0	8.2	4.1
Coal	2.1	2.3	2.5	2.8	3.1	3.3	1.9
Electricity	2.9	3.3	4.0	4.8	5.7	6.8	3.7
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Delivered Energy	**20.9**	**22.6**	**26.1**	**29.8**	**34.0**	**38.7**	**2.6**
Electricity-Related Losses[a]	5.2	7.0	8.3	9.7	11.1	12.8	3.8
Total	**26.1**	**29.6**	**34.4**	**39.5**	**45.1**	**51.5**	**2.9**
Electric Power[b]							
Liquids	1.0	1.0	1.0	1.0	1.0	0.9	-0.3
Natural Gas	3.0	3.4	4.2	5.0	5.6	6.1	3.0
Coal	2.9	3.3	3.6	4.0	5.1	7.0	3.7
Nuclear	0.4	0.5	0.6	0.8	1.0	1.1	4.2
Renewables	1.6	2.1	2.9	3.7	4.2	4.5	4.3
Total	**9.0**	**10.3**	**12.3**	**14.5**	**16.8**	**19.6**	**3.3**
Total Energy Consumption							
Liquids	12.9	14.4	15.6	17.2	19.1	21.3	2.1
Natural Gas	6.1	7.1	9.1	11.0	12.7	14.3	3.6
Coal	5.1	5.5	6.1	6.7	8.1	10.4	3.0
Nuclear	0.4	0.5	0.6	0.8	1.0	1.1	4.1
Renewables	1.6	2.1	2.9	3.7	4.2	4.5	4.3
Total	**26.1**	**29.6**	**34.4**	**39.5**	**45.1**	**51.5**	**2.9**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F16. Delivered Energy Consumption in the Middle East by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.8	0.9	0.8	0.8	0.8	0.9	0.4
Natural Gas	1.5	1.8	1.8	1.8	1.8	1.9	0.8
Coal	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Electricity	0.9	1.0	1.1	1.3	1.4	1.6	2.5
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**3.2**	**3.6**	**3.8**	**3.9**	**4.1**	**4.3**	**1.2**
Commercial							
Liquids	0.2	0.2	0.2	0.2	0.2	0.2	1.4
Natural Gas	0.2	0.3	0.3	0.3	0.3	0.3	2.1
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.5	0.5	0.6	0.7	0.9	1.0	3.2
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.9**	**1.0**	**1.1**	**1.2**	**1.4**	**1.6**	**2.6**
Industrial							
Liquids	4.0	4.8	5.0	5.3	5.9	6.5	2.1
Natural Gas	5.1	6.3	7.4	7.7	8.1	8.6	2.2
Coal	0.0	0.0	0.1	0.1	0.1	0.1	3.0
Electricity	0.5	0.6	0.6	0.6	0.7	0.7	1.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**9.6**	**11.7**	**13.1**	**13.8**	**14.7**	**15.9**	**2.1**
Transportation							
Liquids	5.0	6.0	6.6	7.2	7.9	8.9	2.4
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**5.0**	**6.0**	**6.6**	**7.2**	**7.9**	**8.9**	**2.4**
All End-Use Sectors							
Liquids	10.0	11.8	12.6	13.5	14.9	16.5	2.1
Natural Gas	6.8	8.3	9.5	9.8	10.2	10.8	1.9
Coal	0.0	0.0	0.1	0.1	0.1	0.1	3.0
Electricity	1.9	2.1	2.4	2.6	3.0	3.3	2.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Delivered Energy	**18.8**	**22.3**	**24.5**	**26.1**	**28.1**	**30.7**	**2.1**
Electricity-Related Losses[a]	5.0	5.4	5.7	6.1	6.5	7.0	1.4
Total	**23.8**	**27.7**	**30.3**	**32.2**	**34.6**	**37.7**	**1.9**
Electric Power[b]							
Liquids	2.4	2.6	2.7	2.6	2.6	2.7	0.5
Natural Gas	3.9	4.2	4.7	5.2	5.8	6.5	2.1
Coal	0.3	0.3	0.3	0.3	0.4	0.4	0.8
Nuclear	0.0	0.0	0.1	0.1	0.1	0.1	—
Renewables	0.2	0.3	0.4	0.4	0.5	0.5	3.3
Total	**6.9**	**7.5**	**8.1**	**8.7**	**9.4**	**10.3**	**1.7**
Total Energy Consumption							
Liquids	12.4	14.4	15.3	16.1	17.5	19.2	1.8
Natural Gas	10.8	12.5	14.2	15.0	16.1	17.4	2.0
Coal	0.4	0.4	0.4	0.4	0.4	0.5	1.1
Nuclear	0.0	0.0	0.1	0.1	0.1	0.1	—
Renewables	0.2	0.3	0.4	0.5	0.5	0.5	3.4
Total	**23.8**	**27.7**	**30.3**	**32.2**	**34.6**	**37.7**	**1.9**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F17. Delivered Energy Consumption in Africa by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.8	0.8	0.8	0.8	0.9	0.9	0.7
Natural Gas	0.2	0.3	0.3	0.4	0.4	0.5	3.1
Coal	0.1	0.1	0.1	0.1	0.2	0.2	2.3
Electricity	0.5	0.6	0.7	0.8	0.9	1.1	3.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.6**	**1.8**	**1.9**	**2.2**	**2.4**	**2.7**	**2.1**
Commercial							
Liquids	0.1	0.1	0.1	0.1	0.1	0.1	1.1
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	4.7
Coal	0.1	0.1	0.1	0.1	0.1	0.1	2.0
Electricity	0.2	0.2	0.3	0.4	0.4	0.5	3.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.3**	**0.4**	**0.4**	**0.5**	**0.6**	**0.7**	**3.2**
Industrial							
Liquids	1.5	1.7	1.7	1.7	1.7	1.8	0.7
Natural Gas	1.3	1.6	2.0	2.3	2.6	2.7	3.1
Coal	1.3	1.3	1.4	1.4	1.4	1.5	0.6
Electricity	0.9	1.0	1.1	1.3	1.4	1.4	1.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total	**5.0**	**5.5**	**6.2**	**6.7**	**7.1**	**7.4**	**1.6**
Transportation							
Liquids	3.2	3.7	3.9	4.1	4.3	4.5	1.5
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1	2.8
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Total	**3.3**	**3.8**	**4.0**	**4.2**	**4.5**	**4.7**	**1.5**
All End-Use Sectors							
Liquids	5.5	6.2	6.4	6.6	7.0	7.3	1.2
Natural Gas	1.6	1.9	2.4	2.8	3.1	3.4	3.1
Coal	1.4	1.5	1.5	1.6	1.7	1.7	0.8
Electricity	1.6	1.8	2.1	2.5	2.8	3.1	2.6
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Delivered Energy	**10.2**	**11.5**	**12.5**	**13.6**	**14.6**	**15.5**	**1.8**
Electricity-Related Losses[a]	4.3	4.7	5.2	5.6	6.0	6.3	1.6
Total	**14.5**	**16.2**	**17.7**	**19.1**	**20.6**	**21.8**	**1.7**
Electric Power[b]							
Liquids	0.6	0.9	0.9	0.9	0.8	0.8	1.0
Natural Gas	1.6	1.7	2.2	2.7	3.1	3.3	3.2
Coal	2.7	2.8	2.8	2.9	3.1	3.6	1.1
Nuclear	0.1	0.1	0.2	0.2	0.2	0.2	3.3
Renewables	0.9	1.0	1.3	1.4	1.5	1.5	2.1
Total	**6.0**	**6.6**	**7.3**	**8.0**	**8.7**	**9.4**	**1.9**
Total Energy Consumption							
Liquids	6.1	7.1	7.3	7.5	7.8	8.1	1.2
Natural Gas	3.2	3.7	4.6	5.5	6.2	6.7	3.2
Coal	4.2	4.2	4.4	4.6	4.8	5.3	1.0
Nuclear	0.1	0.1	0.2	0.2	0.2	0.2	3.3
Renewables	0.9	1.0	1.3	1.4	1.5	1.5	2.1
Total	**14.5**	**16.2**	**17.7**	**19.1**	**20.6**	**21.8**	**1.7**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F18. Delivered Energy Consumption in Brazil by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.3	0.3	0.3	0.3	0.3	0.3	1.1
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	7.3
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.3	0.4	0.5	0.5	0.6	0.7	3.3
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.6**	**0.7**	**0.8**	**0.9**	**1.0**	**1.1**	**2.5**
Commercial							
Liquids	0.0	0.1	0.1	0.1	0.1	0.1	1.3
Natural Gas	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.3	0.4	0.5	0.7	0.8	0.9	4.4
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.4**	**0.5**	**0.6**	**0.7**	**0.9**	**1.0**	**4.1**
Industrial							
Liquids	1.7	1.9	2.1	2.2	2.4	2.6	1.9
Natural Gas	0.4	0.5	0.6	0.7	0.7	0.7	2.0
Coal	0.4	0.4	0.5	0.6	0.7	0.8	3.2
Electricity	0.6	0.8	0.9	1.0	1.0	1.1	2.4
Renewables	0.2	0.2	0.2	0.2	0.2	0.2	0.5
Total	**3.3**	**3.8**	**4.2**	**4.7**	**5.1**	**5.5**	**2.1**
Transportation							
Liquids	2.4	2.8	3.2	3.5	4.0	4.5	2.6
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1	3.3
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Total	**2.5**	**2.9**	**3.3**	**3.7**	**4.1**	**4.7**	**2.7**
All End-Use Sectors							
Liquids	4.4	5.1	5.6	6.1	6.8	7.6	2.3
Natural Gas	0.5	0.6	0.7	0.8	0.9	0.9	2.4
Coal	0.4	0.4	0.5	0.6	0.7	0.8	3.2
Electricity	1.3	1.6	1.9	2.2	2.5	2.8	3.2
Renewables	0.2	0.2	0.2	0.2	0.2	0.2	0.5
Delivered Energy	**6.8**	**7.9**	**8.9**	**9.9**	**11.1**	**12.3**	**2.5**
Electricity-Related Losses[a]	2.8	3.4	4.0	4.6	5.2	5.8	3.0
Total	**9.6**	**11.4**	**12.9**	**14.5**	**16.3**	**18.0**	**2.6**
Electric Power[b]							
Liquids	0.1	0.1	0.1	0.1	0.1	0.1	-0.6
Natural Gas	0.2	0.4	0.5	0.6	0.9	0.9	7.1
Coal	0.1	0.1	0.1	0.1	0.2	0.2	5.1
Nuclear	0.1	0.2	0.2	0.2	0.2	0.2	2.0
Renewables	3.4	4.3	5.0	5.7	6.4	7.1	3.1
Total	**4.2**	**5.0**	**5.9**	**6.8**	**7.7**	**8.5**	**3.0**
Total Energy Consumption							
Liquids	4.6	5.2	5.7	6.2	6.8	7.6	2.1
Natural Gas	0.7	1.0	1.2	1.5	1.8	1.9	4.1
Coal	0.4	0.5	0.6	0.7	0.9	1.0	3.5
Nuclear	0.1	0.2	0.2	0.2	0.2	0.2	2.1
Renewables	3.6	4.5	5.2	5.9	6.6	7.3	3.0
Total	**9.6**	**11.4**	**12.9**	**14.5**	**16.3**	**18.0**	**2.6**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).

Table F19. Delivered Energy Consumption in Other Central and South America by End-Use Sector and Fuel, 2006-2030
(Quadrillion Btu)

Sector/Fuel	2006	Projections 2010	2015	2020	2025	2030	Average Annual Percent Change, 2006-2030
Residential							
Liquids	0.5	0.5	0.5	0.5	0.5	0.5	0.1
Natural Gas	0.4	0.5	0.6	0.6	0.7	0.8	2.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	4.7
Electricity	0.4	0.5	0.6	0.6	0.7	0.7	2.0
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**1.3**	**1.5**	**1.6**	**1.7**	**1.8**	**2.0**	**1.6**
Commercial							
Liquids	0.1	0.1	0.1	0.1	0.1	0.1	0.7
Natural Gas	0.1	0.1	0.1	0.1	0.1	0.1	1.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.3	0.3	0.4	0.5	0.5	0.6	2.7
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	—
Total	**0.5**	**0.5**	**0.6**	**0.6**	**0.7**	**0.8**	**2.1**
Industrial							
Liquids	2.6	2.8	2.6	2.4	2.4	2.4	-0.3
Natural Gas	2.5	2.9	3.3	3.5	3.8	3.8	1.8
Coal	0.0	0.0	0.0	0.1	0.1	0.1	5.8
Electricity	0.6	0.7	0.7	0.7	0.8	0.8	0.9
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-0.2
Total	**5.8**	**6.4**	**6.6**	**6.7**	**7.0**	**7.1**	**0.9**
Transportation							
Liquids	3.4	4.1	4.0	3.9	4.1	4.3	1.1
Natural Gas	0.2	0.2	0.3	0.3	0.4	0.4	3.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	—
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Total	**3.6**	**4.3**	**4.3**	**4.3**	**4.5**	**4.8**	**1.2**
All End-Use Sectors							
Liquids	6.5	7.5	7.1	6.9	7.1	7.4	0.5
Natural Gas	3.2	3.7	4.2	4.6	4.9	5.1	2.0
Coal	0.0	0.0	0.0	0.1	0.1	0.1	5.8
Electricity	1.4	1.5	1.7	1.8	2.0	2.1	1.7
Renewables	0.0	0.0	0.0	0.0	0.0	0.0	-0.2
Delivered Energy	**11.2**	**12.8**	**13.0**	**13.4**	**14.1**	**14.6**	**1.1**
Electricity-Related Losses[a]	3.4	4.2	4.4	4.6	4.8	5.0	1.6
Total	**14.6**	**17.0**	**17.5**	**18.0**	**18.9**	**19.7**	**1.3**
Electric Power[b]							
Liquids	0.8	0.8	0.8	0.7	0.7	0.7	-0.7
Natural Gas	0.9	1.2	1.3	1.4	1.5	1.6	2.3
Coal	0.4	0.4	0.4	0.4	0.4	0.5	1.3
Nuclear	0.1	0.1	0.1	0.1	0.1	0.1	2.0
Renewables	3.0	3.3	3.6	3.8	4.0	4.2	1.4
Total	**5.3**	**5.7**	**6.1**	**6.4**	**6.8**	**7.1**	**1.3**
Total Energy Consumption							
Liquids	7.1	8.3	7.9	7.7	7.8	8.0	0.5
Natural Gas	4.1	4.8	5.4	6.0	6.5	6.7	2.1
Coal	0.4	0.4	0.4	0.4	0.5	0.6	1.7
Nuclear	0.1	0.1	0.1	0.1	0.1	0.1	2.0
Renewables	3.0	3.4	3.6	3.8	4.0	4.2	1.4
Total	**14.6**	**17.0**	**17.5**	**18.0**	**18.9**	**19.7**	**1.3**

[a]Electricity losses incurred in the transmission and distribution of electric power. May include some heat production.
[b]Fuel inputs used in the production of electricity and heat at central-station generators.
Sources: **2006:** Derived from Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia. doe.gov/iea. **Projections:** EIA, World Energy Projections Plus (2009).